

Amendments to the Claims:

1. (Currently Amended) A method for measuring ultrahigh vacuum comprising the step of:

- (a) providing an ultrahigh-vacuum cold cathode pressure gauge; and
- (b) varying a voltage on an anode of the ~~pressure-cell~~ cold cathode pressure gauge with pressure in such a way that an ion current flow is maintained substantially at its maximum value at all times, wherein a voltage-controlled source preliminarily scans a whole voltage range in a relatively short time, and subsequently sets the source to the voltage, at which the current is substantially at its maximum value.

2. (Currently Amended) A method for measuring ultrahigh vacuum comprising the step of:

- (a) providing an ultrahigh-vacuum cold cathode pressure gauge; and
- (b) varying a voltage on an anode of the ~~pressure-cell~~ cold cathode pressure gauge with pressure in such a way that an ion current flow is maintained substantially at its maximum value at all times, wherein a voltage-controlled source, based on the calibration of the gauge, sets the voltage, for a given pressure, to the value that has been previously stored as substantially optimal.

3. (Previously Presented) A device for measuring ultrahigh vacuum, the said device comprising:

- (a) an ultrahigh-vacuum cold cathode pressure gauge comprising an anode, and
- (b) a voltage-controlled source in communication with said anode, wherein said source is controlled in such a manner that an output voltage of the voltage-controlled source varies with pressure so as to maintain an ion current substantially at its maximum level at all times.

4. (Currently Amended) The device according to Claim 3, wherein the voltage-controlled source₁ by means of the gauge₁ preliminarily scans the whole voltage range in a relatively short time, and subsequently sets the source to the voltage, at which the current is substantially at its maximum value.

5. (Currently Amended) The device according to Claim 3, wherein based on a calibration of the gauge, a computerized source is employed [[,]] which will set the voltage[[,]] for a given pressure[[,]] to the value that has been previously stored as optimal.

6. (Currently Amended) The device according to Claim 3 wherein the ~~pressure gauge~~ cold cathode pressure gauge is any one of a magnetron pressure gauge ~~or~~ an inverted magnetron pressure gauge ~~or~~ a Penning pressure gauge ~~or~~.

7. (Currently Amended) The device according to Claim 4 wherein the ~~pressure gauge~~ cold cathode pressure gauge is any one of a magnetron pressure gauge ~~or~~ an inverted magnetron pressure gauge ~~or~~ a Penning pressure gauge ~~or~~.

8. (Currently Amended) The device according to Claim 5 wherein the ~~pressure gauge~~ cold cathode pressure gauge is any one of a magnetron pressure gauge ~~or~~ an inverted magnetron pressure gauge ~~or~~ a Penning pressure gauge ~~or~~.

9. (Previously Presented) The device according to Claim 1, wherein the whole voltage range comprises between about 1 kV and about 12 kV.

10. (Previously Presented) The device according to Claim 4, wherein the whole voltage range comprises between about 1 kV and about 12 kV.